

ABSTRACT OF THE DISCLOSURE

METHODS FOR CONDUCTING METABOLIC ANALYSES

5 The present invention provides methods and apparatus for purifying
metabolites of interest and conducting metabolic analyses. The methods generally involve
determining metabolic flux values for a plurality of target analytes by monitoring the relative
isotope abundance of a stable isotope in a substrate labeled with the stable isotope and/or one
or more target metabolites formed through metabolism of the labeled substrate. Certain
10 methods utilize multiple electrophoretic methods to separate the target analytes from other
components within the sample being analyzed. The methods can be used in a variety of
applications including screens to identify metabolites that are correlated with certain diseases
and diagnostic screens for identifying individuals having, or susceptible to, a disease.

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